

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

A NEW SPECIES OF *CINARA* FROM KNOB-CONE
PINE (APHIDAE)

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This new species of *Cinara* is named for Prof. E. O. Essig who for half a century has contributed materially to our knowledge of the family Aphidae.

Cinara essigi, new species

Apterous viviporous female: Length from vertex to end of cauda 4.5 mm. Color in life not recorded. As cleared, stained and mounted it is as follows: Head and first antennal segment dark dusky with median transverse suture much darker; thorax dusky; abdomen pale, reticulated, wax glands small, arranged in four rows, rather more lateral than dorsal; cornicles dark dusky, often with clear areas; cauda and anal plate dusky; anterior to the transverse pigmented areas there are two narrow, very irregular pigmented areas; second antennal segment not as dark as first; basal portion of third antennal segment pale, apical third dusky; basal half of fourth antennal segment pale, remainder dusky, fifth segment similar to fourth; all of sixth antennal segment dusky; all femora pale dusky with basal portions not quite so dark; all tibiae with short portion near base dusky brown, this followed by pale area, which in the case of the metathoracic tibiae is 0.75 mm in length; remainder of tibiae dusky brown; tarsal segments brown.

Head and thorax: Width of head through the eyes 0.825 mm. Length of antennal segments as follows: III 0.55 mm, IV 0.275 mm, V 0.30 mm, VI 0.15 + 0.045 mm. Third antennal segment without sensoria. Fourth antennal segment with or without primary sensorium. Fifth antennal segment with one secondary sensorium, and the primary. Marginal sensoria on sixth antennal segment three, arranged in a straight row. Hairs on antennal segments sparse, upstanding, on third antennal segment varying from 0.03-0.075 mm. Hairs on vertex of head 0.09 mm in length. Ocular tubercles small. Last three segments of the rostrum with the following lengths: 0.31, 0.30, 0.12 mm. Rostrum reaching to mid region of cornicles. Mesosternal tubercle well developed, about 0.09 mm in length, with a distinct neck, apex enlarged. Metathoracic femora 1.53 mm in length. Metathoracic tibiae 2.70 mm in length. Hairs on metathoracic tibiae set at an angle slightly less than 45 degrees, but more than 30 degrees. Hairs on outer margin of tibiae not uniform in length, varying from 0.05-0.075

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mm, fine, sharp pointed, hardly numerous, and not droopy. First segment of metatarsus 0.12 mm in length, provided on the ventral surface with about eighteen hairs. Second segment of metatarsus 0.30 mm in length, joined to first segment by a distance about equal to the width of segment, the hairs on the dorsal surface longer than the hairs on the ventral surface.

Abdomen: Dorsal surface of abdomen reticulated. Hairs on dorsal surface of abdomen not numerous, about 0.075 mm in length. Hairs on ventral surface of abdomen not as long or as numerous as hairs on dorsal surface. Hairs on transverse pigmented area rather coarse, varying from 0.13–0.15 mm in length, and with the exception of two or three, arranged along the posterior margin. Cornicles with outer margin very irregular, 0.45 mm across. The orifice of the cornicles is acentric, much more lateral than median. Hairs on cornicles sparse, about 0.10 mm in length. Genital plate with posterior margin concave; median anterior margin free from hairs.

Remarks: Antennal segments varying in length as follows: III 0.525–0.57 mm, IV 0.275–0.30 mm, V 0.285–0.30 mm, VI 0.105–0.15 mm + 0.045–0.05 mm. Hairs on vertex of head varying from 0.09–0.10 mm. Rostrum in one case with segments 3, 4 and 5 reaching beyond cornicles. In one case the metathoracic tibiae are only 1.77 mm in length.

In some respects this species is allied to *C. ponderosae* (W) but it has a mesosternal tubercle which is lacking in that species. The hairs on the metathoracic tibiae are more numerous and less spinelike, and the abdomen is free from small pigmented spots. This species is difficult to key in Palmer's key to the genus *Cinara* in Aphids of the Rocky Mountain Region, because the limited number of specimens (six) fall in both alternatives of couplet number 18. However, the hairs on the metathoracic tibiae are shorter than 0.08 mm and not semi-spinelike. It is not the species *C. brevispinosa* (G & P). It is not *C. apini* (G & P), inasmuch as the antennal segments are too long, the tibial hairs longer and rostral segment IV is 0.30 mm not 0.17–0.20 mm.

Holotype: Apterous viviparous female deposited in collection of the United States National Museum. Paratype slide in collection of author. The host is knob-cone pine (*Pinus attenuata*). Oak Glen, San Bernardino Co., California. R. C. Dickson, 20 November 1938.

